

REMARKS

In view of the above amendments and the following remarks, reconsideration and further examination are respectfully requested.

I. Claim Amendments

Claims 1 and 12 have been amended to clarify features of the invention recited therein and to further distinguish the present invention from the references relied upon in the rejections discussed below. Further, new claims 15 and 16 have been added.

Additionally, claim 5 has been cancelled without prejudice or disclaimer of the subject matter recited therein.

II. Claim Objections

Claims 1 and 12 were objected to for reciting "being is," which is grammatically incorrect. Claim 1 has been amended to replace the phrase "being is" with the term "being" and claim 12 has been amended to delete the phrase "being is." As a result, withdrawal of these objections is respectfully requested, since claims 1 and 12 no longer recite "being is."

III. 35 U.S.C. § 103(a) Rejections

Claims 1, 3, 5-9, 11 and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of the admitted prior art (see pages 1-4, 8 and 9 of the specification) and Pommer (U.S. 6,560,844). Further, claims 2, 4 and 10-14 were rejected under 35 U.S.C. §

103(a) as being unpatentable over various combinations of the admitted prior art, Pommer, Ikeguchi et al. (JP 57011026), Shirasawa et al. (U.S. 4,614,559), Del (U.S. 4,180,608) and Levit (U.S. 2005/0230072). These rejections are respectfully traversed and are believed clearly inapplicable to amended independent claim 1 and claims 2-4 and 6-16 that depend therefrom for the following reasons.

Independent claim 1 recites a method of manufacturing a multi-layer circuit board including a core circuit board (with a circuit pattern) and a prepreg sheet. Further, claim 1 recites forming a laminated structure from (i) a laminated member including the core circuit board and the prepreg sheet and (ii) a pair of lamination plates, the laminated member being sandwiched between the pair of lamination plates. Claim 1 also recites that the laminated member further includes a layer of metal foil on both surfaces thereof that are sandwiched between the pair of lamination plates, such that each layer of metal foil is sandwiched between the pair of lamination plates. Further, claim 1 recites that a thermal expansion coefficient of the pair of lamination plates is equivalent to a thermal expansion coefficient of the core circuit board, and that the thermal coefficient of the pair of lamination plates is different from a thermal expansion coefficient of the metal foil.

Initially, please note that the above-described 35 U.S.C. § 103(a) rejection acknowledges that the admitted prior art fails to disclose or suggest the features of the thermal expansion coefficient, as recited in previously presented claim 1. In light of the above, the present rejection relies on Pommer for teaching the above-mentioned features that are admittedly lacking from the admitted prior art. However, in view of the above-identified amendments to claim 1, which

further limit the thermal expansion coefficients, it is submitted that Pommer fails to disclose or suggest the above-mentioned distinguishing features now required by amended claim 1.

Rather, Pommer merely teaches that an alignment plate 10 is used to laminate layers 30 by stacking and sandwiching layers 30 between release sheets 22 and 24 (see Fig. 1 and col. 1, line 66 to col. 2, line 2). Further, Pommer teaches that the alignment plate 10 preferably has the same thermal expansion coefficient as the layers 30 (see col. 2, lines 3-5). Additionally, Pommer teaches that it is preferable that each layer 30 has a similar thermal expansion coefficient, so that each layer 30 will expand in a similar manner (see, col. 2, lines 44-49).

Thus, in view of the above, it is clear that Pommer teaches that each individual layer 30 has a similar thermal expansion coefficient and that the alignment plate 10 has a similar thermal expansion coefficient as each layer 30, but still fails to disclose or suggest that a pair of lamination plates sandwich a laminated member including a core circuit, a prepreg sheet and layers of metal foil, such that the thermal expansion coefficient of the core circuit and thermal expansion coefficient of the pair of laminations plates sandwiching the core circuit are the same, as required by claim 1.

In other words, although Pommer teaches that each layer 30 and the alignment plate 10 have a similar thermal expansion coefficient, Pommer still fails to disclose or suggest specifically that the thermal expansion coefficient of the core circuit board is similar to that of the pair of lamination sheets, as recited in claim 1.

Applicants note that page 7 of the Office Action states that “[t]he alignment plate taught by Pommer is considered a lamination plate. Further, Pommer is evidence that each layer, i.e.

the metal foils, prepreg sheets, core circuit board, and lamination sheets, should all have substantially similar considered equivalent TCE to prevent distortion of the layers.” The Applicants disagree, since claim 1 requires that a pair of lamination plates sandwich a laminated member including a core circuit, a prepreg sheet and layers of metal foil, wherein the TCE of the core circuit and the pair lamination plates sandwiching the core circuit are the same.

In view of the above, the Office Action asserts that Pommer teaches that the metal foil, prepreg sheets, core circuit board, and lamination sheets have a similar thermal expansion coefficient. Thus, according to the position asserted in the Office Action, Pommer requires the thermal expansion coefficient of the lamination sheets to be the same as the thermal expansion coefficient of the metal foil.

As a result, according to the position asserted in the Office Action Pommer teaches that the metal foil and the lamination sheets have the same thermal expansion coefficient, but fails to disclose or suggest that the thermal expansion coefficient of the pair of lamination plates is different from a thermal expansion coefficient of the metal foil, as recited in claim 1.

Therefore, because of the above-mentioned distinctions it is believed clear that claim 1 and claims 2-4 and 6-16 that depend therefrom would not have been obvious or result from any combination of the admitted prior art and Pommer.

Furthermore, there is no disclosure or suggestion in the admitted prior art and/or Pommer or elsewhere in the prior art of record which would have caused a person of ordinary skill in the art to modify the admitted prior art and/or Pommer to obtain the invention of independent claim

1. Accordingly, it is respectfully submitted that independent claim 1 and claims 2-4 and 6-16 that depend therefrom are clearly allowable over the prior art of record.

Regarding dependent claims 2-11, which were rejected under 35 U.S.C. § 103(a) as being unpatentable over the admitted prior art and Pommer in view of various combinations of Ikeguchi, Shirasawa, Del and Levit (secondary references), it is respectfully submitted that these secondary references do not disclose or suggest the above-discussed features of independent claim 1 which are lacking from the admitted prior art and Pommer. Therefore, no obvious combination of the admitted prior art and Pommer with any of the secondary references would result in, or otherwise render obvious, the invention recited independent claim 1 and the claims that depend therefrom.

IV. Conclusion

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance and an early notification thereof is earnestly requested. The Examiner is invited to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,

Toshiaki TAKENAKA et al.

/Andrew L. Dunlap/

By: 2009.04.24 13:26:57 -04'00'

Andrew L. Dunlap
Registration No. 60,554
Attorney for Applicants

ALD/led
Washington, D.C. 20005-1503
Telephone (202) 721-8200
Facsimile (202) 721-8250
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